

Remarks

Claims 1-10 are pending in the present application. To expedite prosecution of the present application, Claim 1 is being cancelled. Applicants reserve the right to further pursue, in a related application, claims consistent with the scope of Claim 1.

No new matter has been added by this amendment.

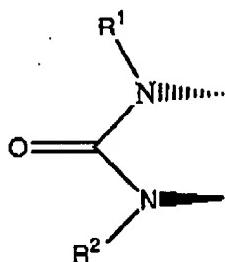
The Examiner's rejection of pending Claims 1-10, as amended, shall now be addressed.

Rejection of Claims 1-10 Under 35 USC 103(a)

The Examiner has rejected pending Claims 1-10 under 35 USC 103(a) as being obvious over International Application WO 00/26244, by Kaneko et al. (hereinafter "Kaneko et al.") in view of US Patent No. 5,747,467 by Agouridas et al. (hereinafter "Agouridas et al.").

Specifically, the Examiner stated that Kaneko et al. disclose compounds identical to those claimed in the present invention with the exception that the compounds of Kaneko et al. did not disclose compounds having a halo substituent at the 2-position. The Examiner also stated that macrolides having a halo substituent at the 2-position are well known in the art, such as are disclosed by Agouridas et al. The Examiner further stated that one of ordinary skill in the art at the time the instant invention was made would have been motivated to modify the compounds of Kaneko et al. with a 2-position halo substituent in accordance with the teaching of Agouridas et al.

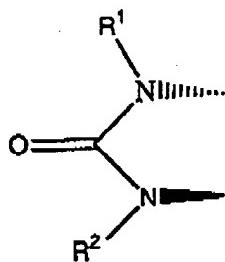
The compounds of the present invention, as recited in amended Claim 1, relate to erythromycin compounds, having an 12,11-[12-N-R<sup>2</sup>-substituted-aminocarbonyl imino] substituent shown below,



wherein  $R^2$  is a  $C_1-C_{10}$  alkyl or a  $C_2-C_{10}$  alkenyl, and a bi-substituted 2-position carbon which is substituted with a methyl group and a halo group.

Kaneko et al.

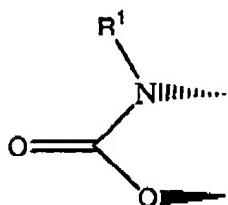
Kaneko et al. disclose an erythromycin, having a 12,11 aminocarbonyl imino substituent shown below,



and a methyl-substituted 2-position carbon. However, Kaneko et al. neither disclose nor suggest an erythromycin wherein 2-position carbon is bi-substituted with a methyl substituent and a halo substituent. Further, Kaneko et al. neither disclose nor suggest the a method for halogenating erythromycins.

Agouridas et al.

Agouridas et al. disclose an erythromycin, having a 12,11 oxycarbonyl imino substituent shown below



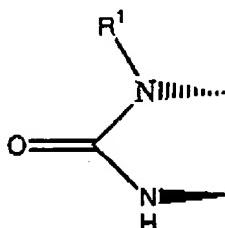
instead of the 12,11 aminocarbonyl imino substituent of the present invention, and a 2-position carbon which is bi-substituted with a methyl substituent and a halo substituent. Agouridas et al. further disclose a method for halogenating a 12,11 oxycarbonyl imino substituted erythromycin.

However, Agouridas et al. neither disclose nor suggest (1) an erythromycin having an 12,11-[12-N- $R^2$ -substituted-aminocarbonyl imino] substituent, (2) a method for halogenating a 12,11-aminocarbonyl imino substituted erythromycin whose 12-N amino is unsubstituted, or (3) a method for further substituting the 12-N-amino group with an  $R^2$  substituent after halogenating the erythromycin.

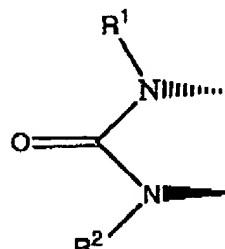
Kaneko et al. in view of Agouridas et al.

Kaneko et al. in view of Agouridas et al. neither disclose nor suggest the compounds of the present invention as described in amended Claim 2 or a method to make the compounds of amended Claim 2. Specifically, Kaneko et al., in combination with of Agouridas et al., neither disclose nor suggest (1) an 2-position halogenated erythromycin having an 12,11-[12-N- $R^2$ -substituted-aminocarbonyl imino] substituent, (2) a method for halogenating a 12,11-aminocarbonyl imino substituted erythromycin whose 12-N amino is unsubstituted, or (3) a method for further substituting the 12-N-amino group with an  $R^2$  substituent after halogenating the erythromycin.

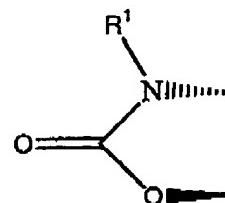
The compounds of Claim 2, as amended, of the present invention, as described on Specification page 10, are prepared by halogenating an erythromycin compound having the following 11,12 substituent



to substitute a halo at the 2-position. This halogenated erythromycin is then reacted under basic conditions with R²-L, wherein L is a leaving group, to substitute the 12-N-amino group with R² and form a 2-position halo erythromycin having the 11,12 substituent



Agouridas et al. only disclose the halogenation of an erythromycin, having the 11,12 oxycarbonyl imino substituent



and neither disclose, nor suggest, nor teach a method to further substitute the 12-N-amino group of a halogenated 12,11 aminocarbonyl imino erythromycin. Further, Agouridas

et al. neither disclose nor suggest the substitution of any erythromycin after halogenation.

Kaneko et al. do not solve the deficiencies in the teachings of Agouridas et al. as Kaneko et al. neither disclose nor suggest the synthesis of any halogenated erythromycin.

Therefore, the compounds of the present invention, as recited in amended Claim 2, are not obvious in view of the combined teachings of Kaneko et al. and Agouridas et al.

Conclusion

Based upon the present amendment, and in view of the above, Applicants respectfully submit that the Examiner's rejection, under 35 USC 103(a) of pending Claims 2-10, as amended, is not proper. Therefore, Applicants respectfully request that this rejections of Claims 2-10, as amended, be withdrawn. Applicants further request that a notice of allowance be issued for pending Claims 2-10.

Respectfully Submitted:

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